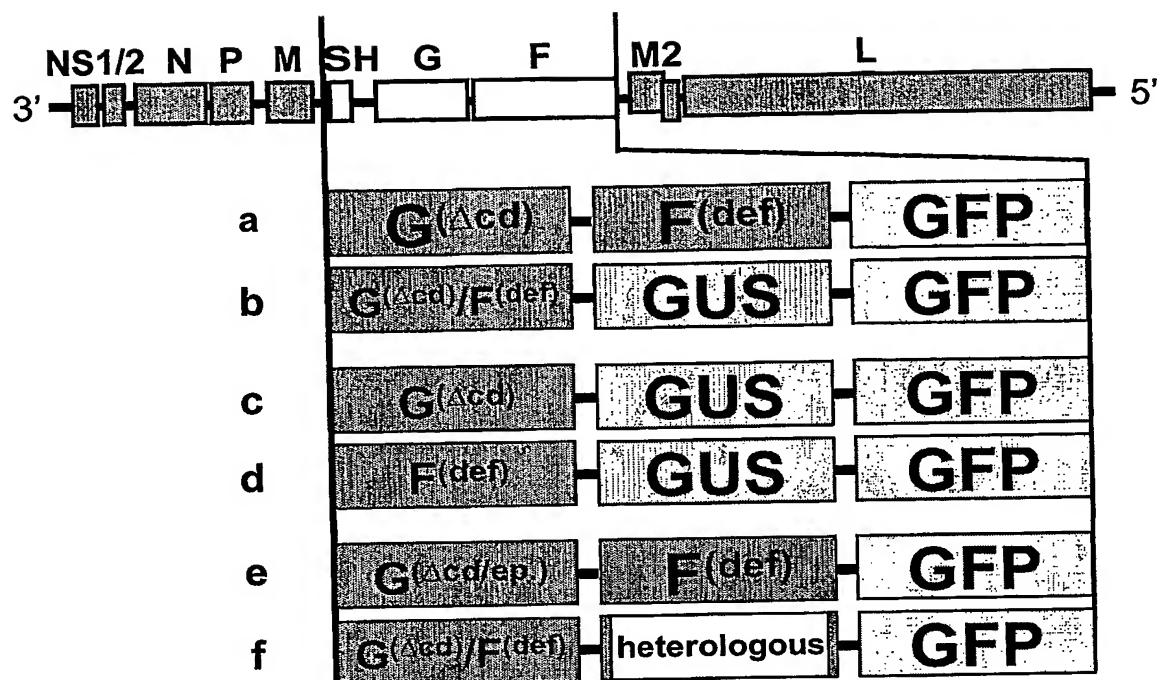
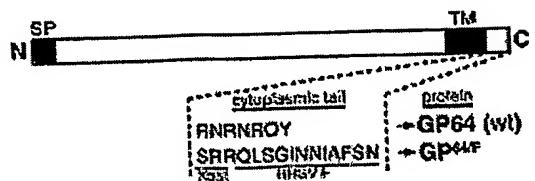
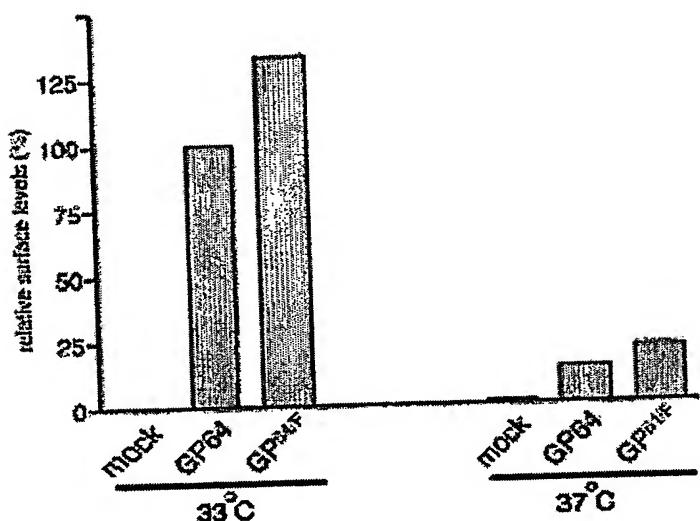
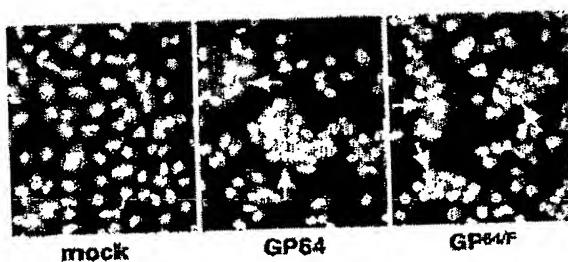
**FIGURE 1**

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**FIGURE 2**

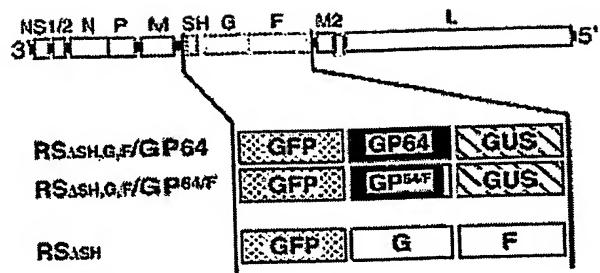
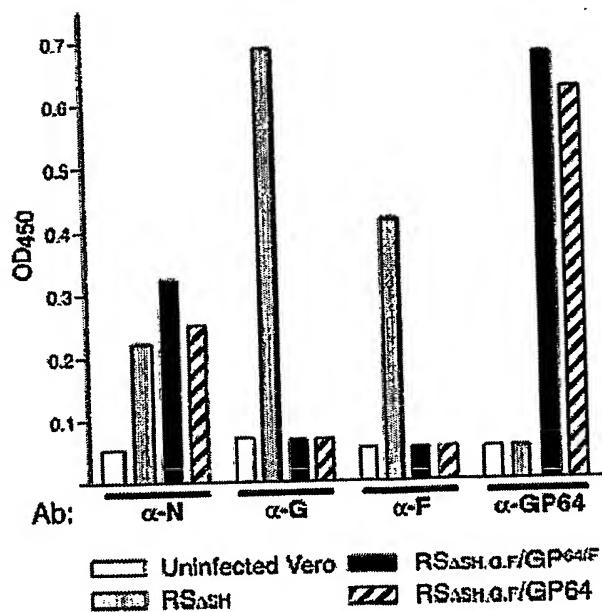
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**FIGURE 3A****FIGURE 3B****FIGURE 3C**

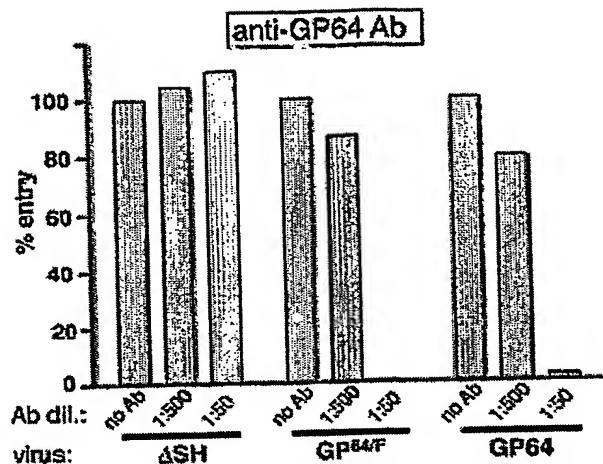
pH	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0
GP64	++	++	+-	-	-	-	-	-	-	-	-
GP64F	++	+	+-	-	-	-	-	-	-	-	-

**FIGURE 3D**

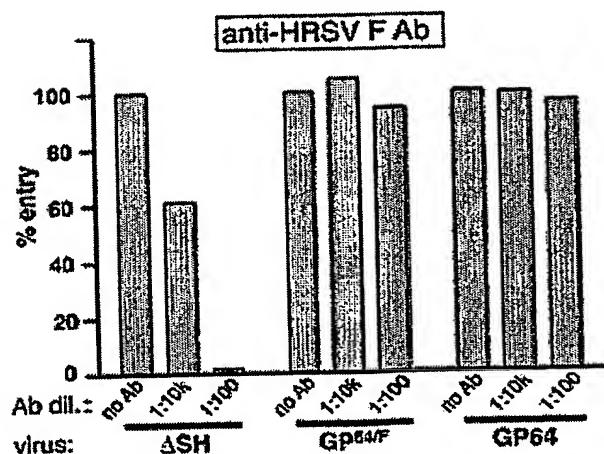
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**FIGURE 4A****FIGURE 4B**

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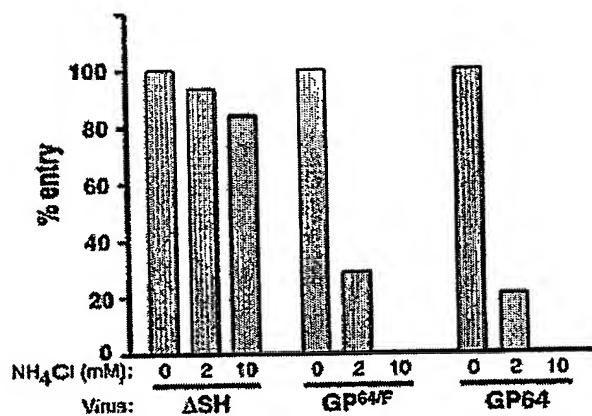
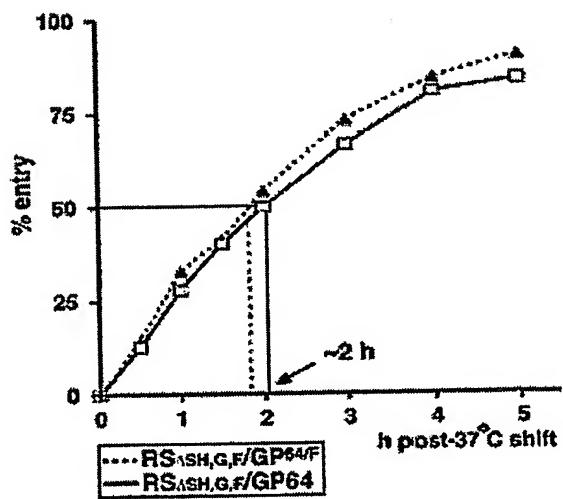


**FIGURE 5A**

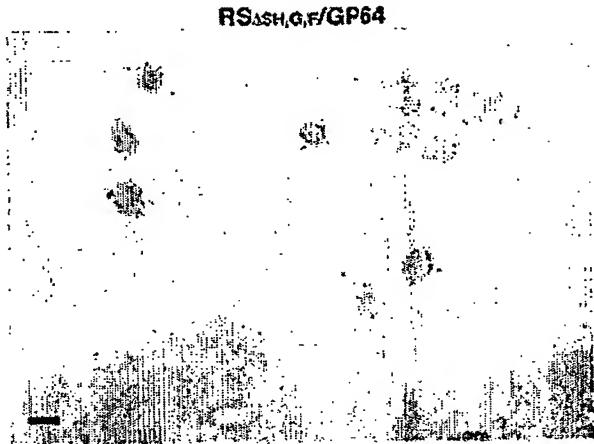


**FIGURE 5B**

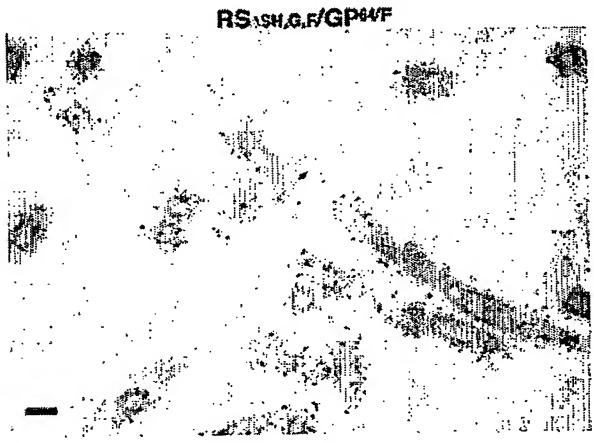
BEST AVAILABLE COPY

**FIGURE 6A****FIGURE 6B**

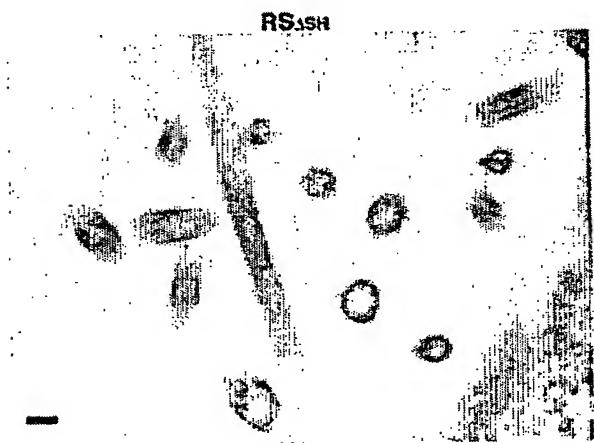
BEST AVAILABLE COPY



**FIGURE 7A**

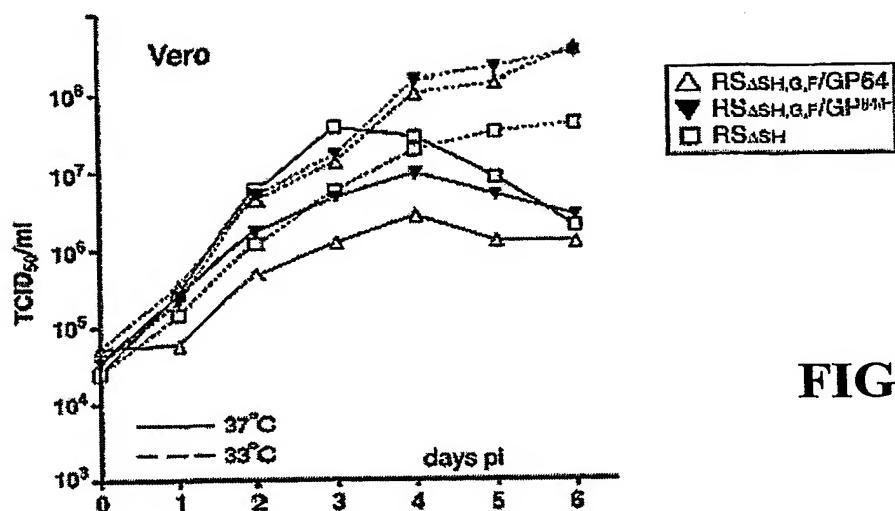
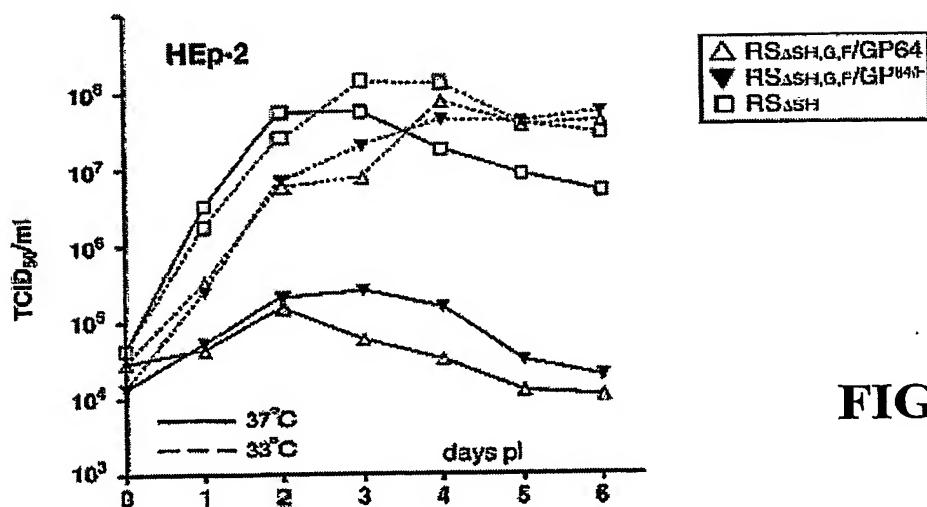


**FIGURE 7B**



**FIGURE 7C**

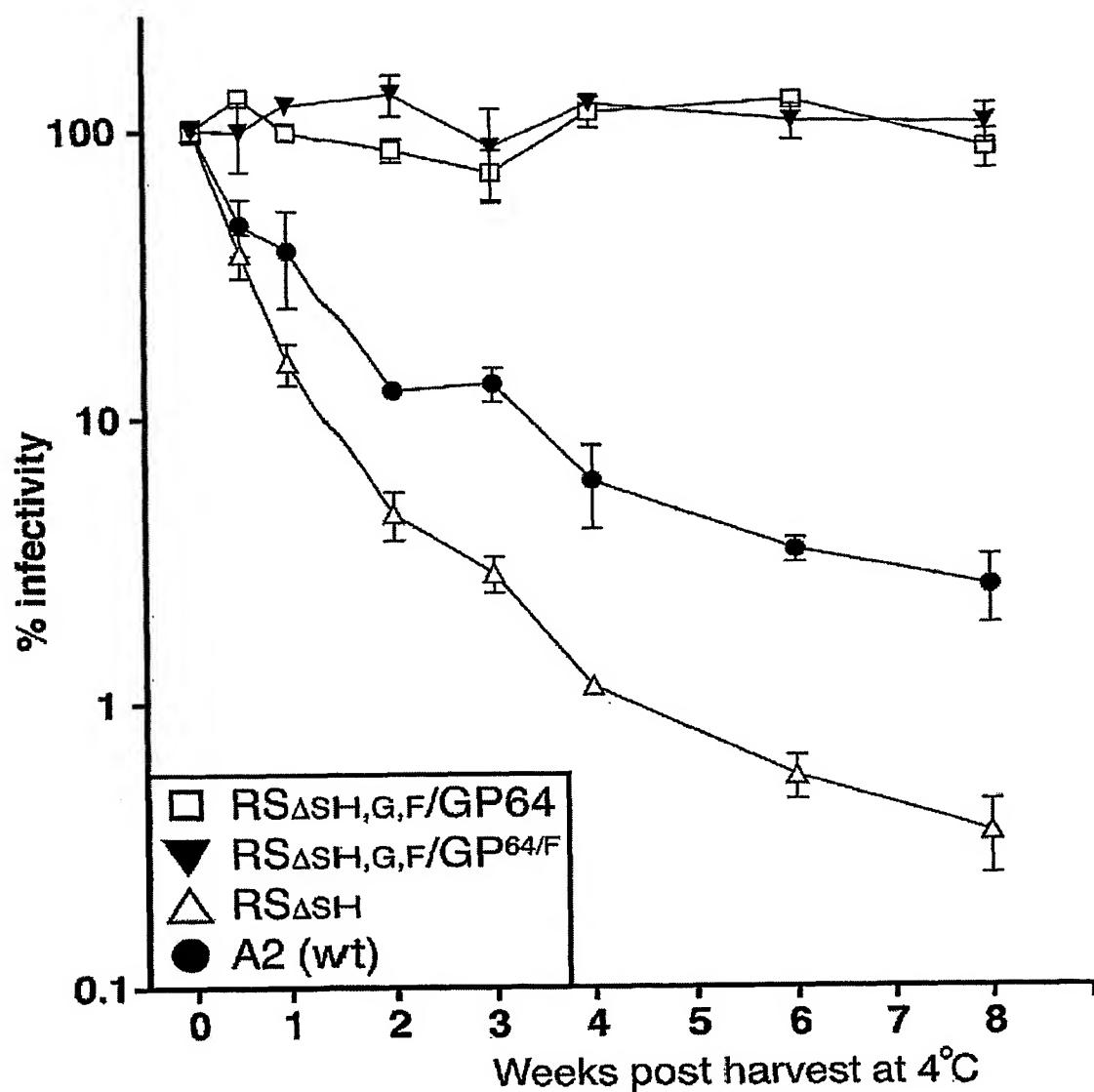
BEST AVAILABLE COPY

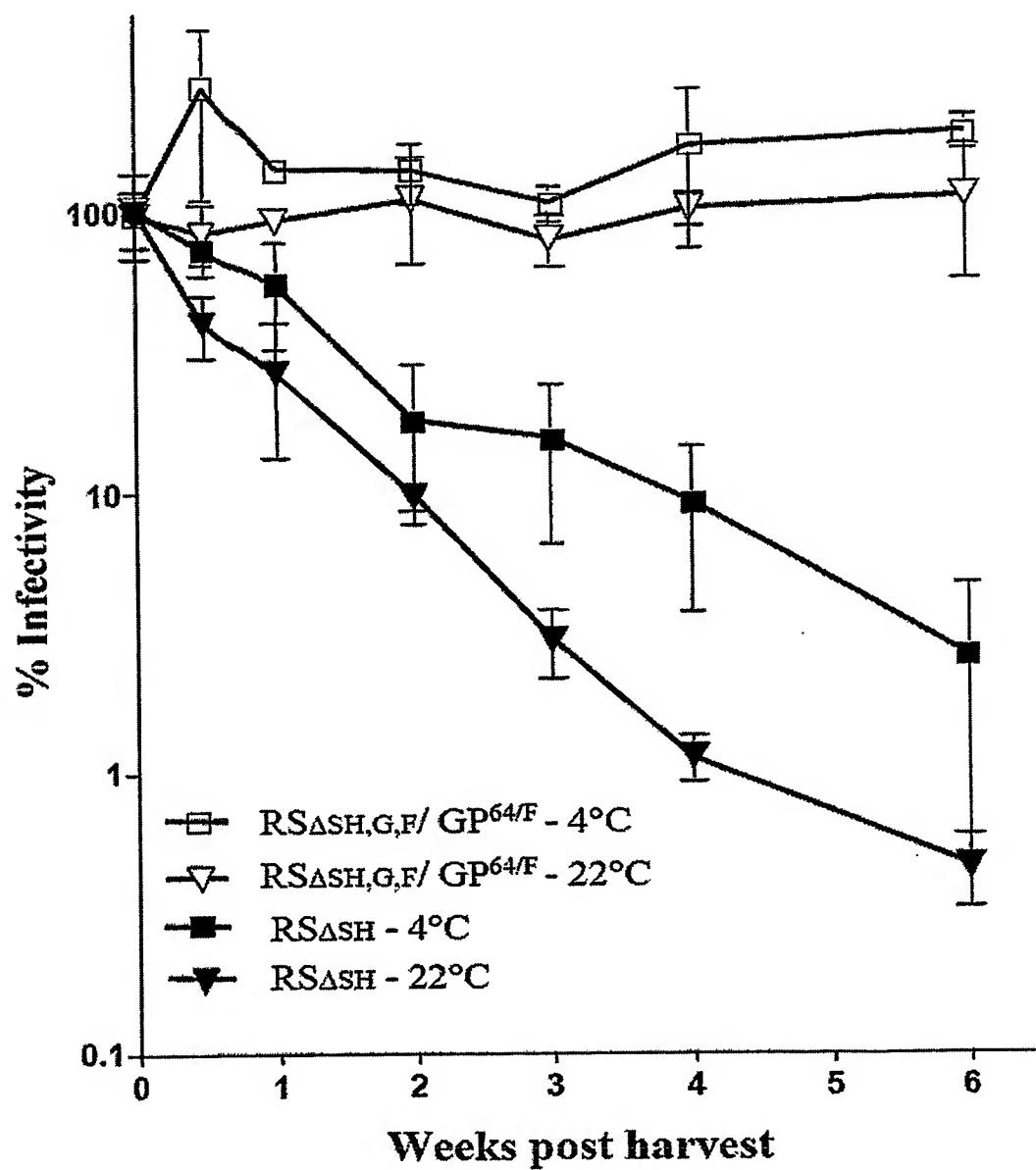
**FIGURE 8A****FIGURE 8B**

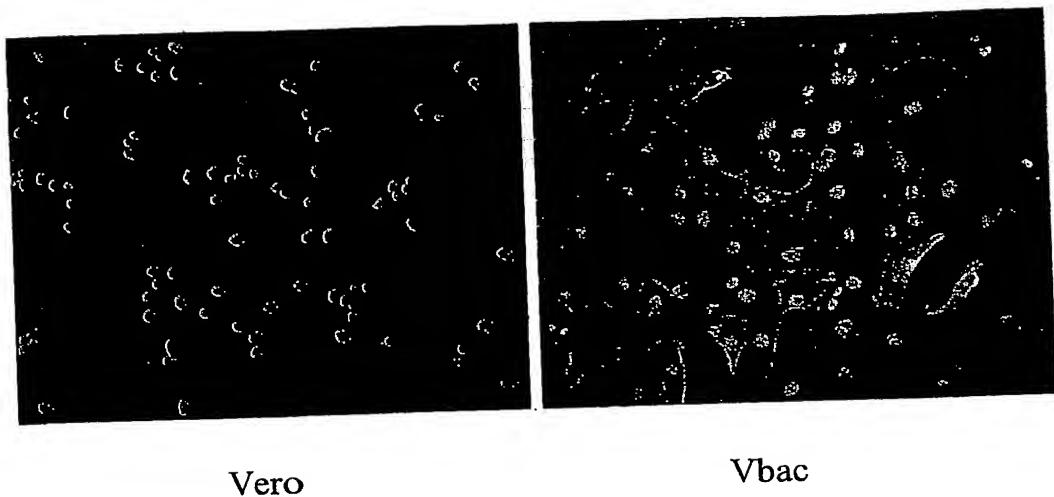
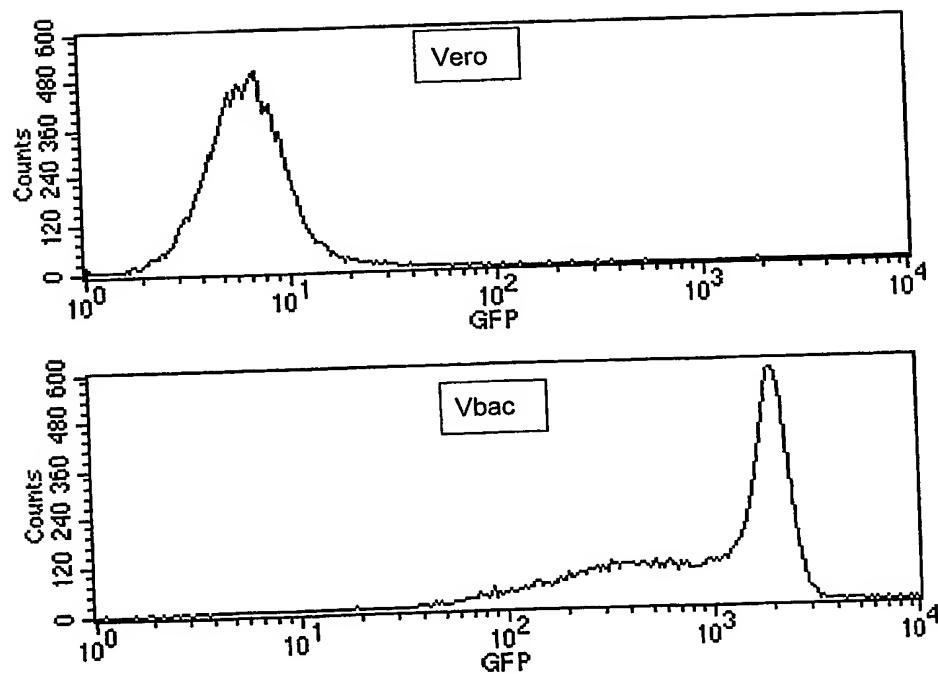
	24 h pi		48 h pi	
	cell	supt	cell	supt
RSASH.G.F/GP64	99.6 %	0.4 %	99.4 %	1.6 %
RSASH.G.F/GP64/F	99.1 %	0.9 %	97.7 %	2.3 %
RSASH	99.7 %	0.3 %	98.2 %	1.8 %

**FIGURE 8C**

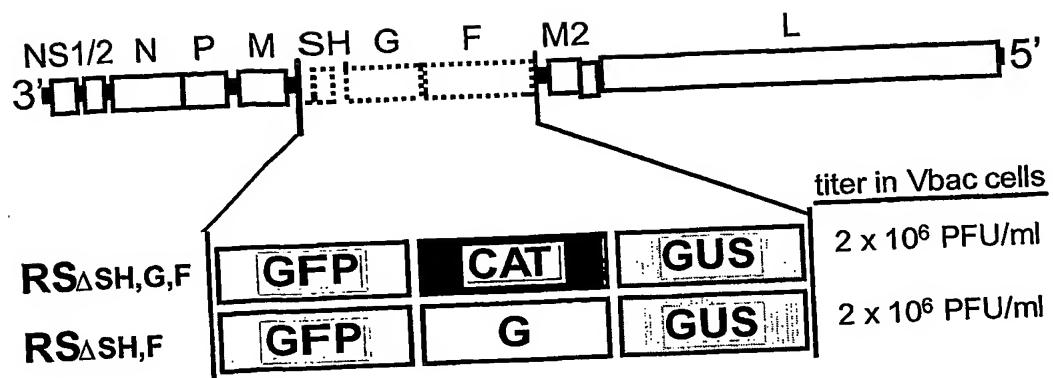
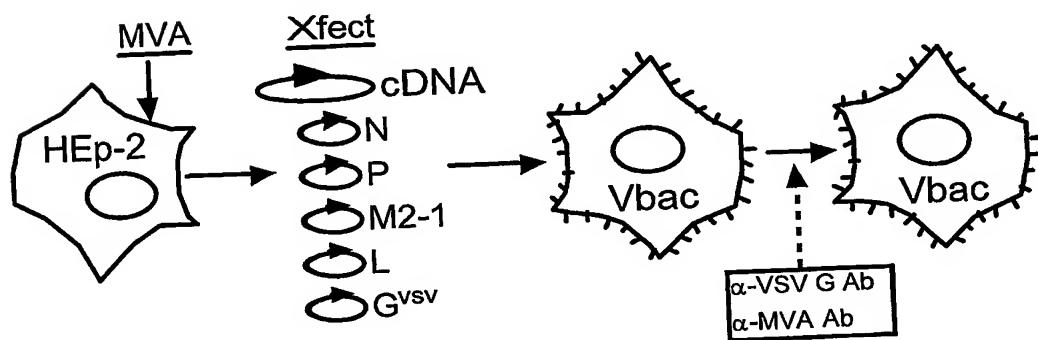
BEST AVAILABLE COPY

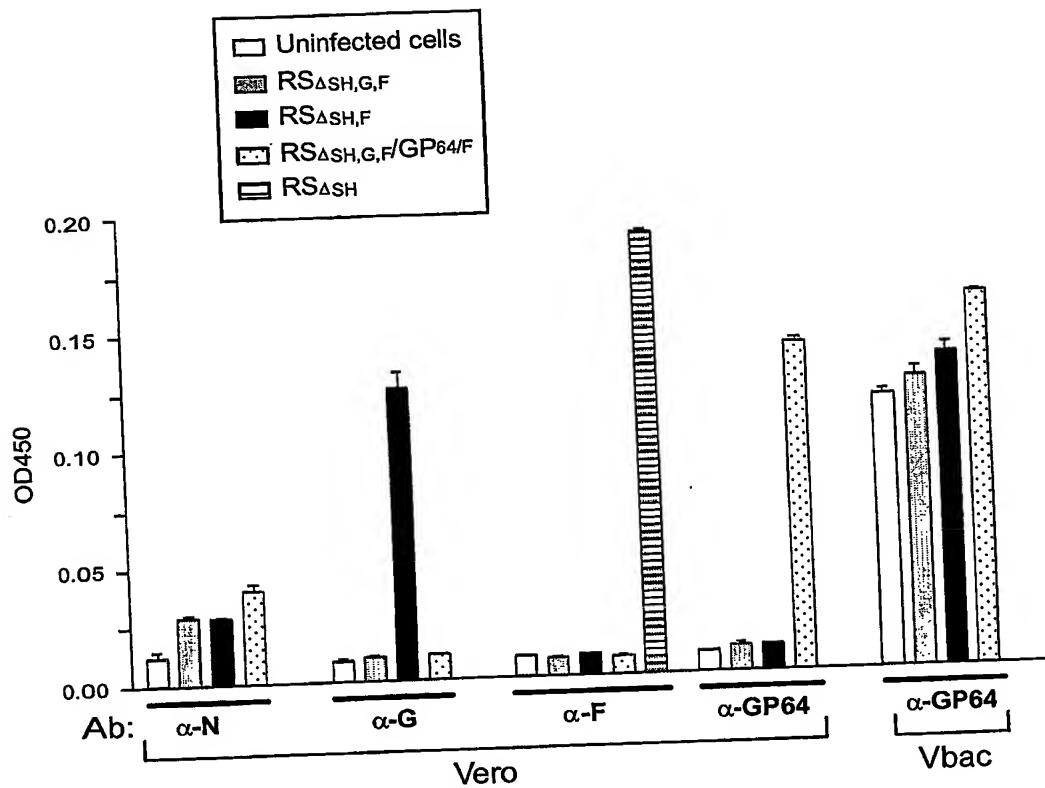
**FIGURE 9A**

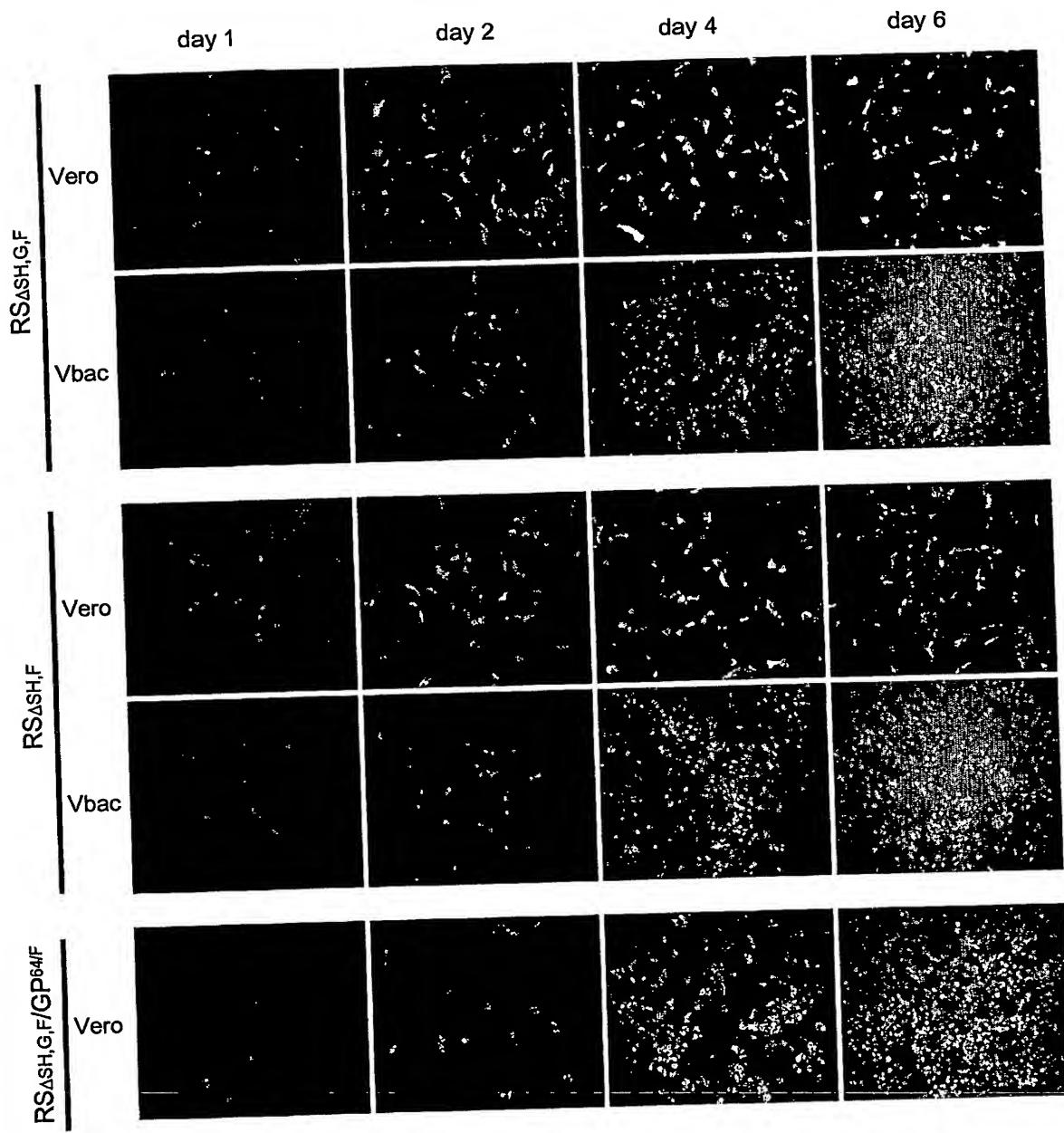
**Figure 9B**

**FIGURE 10A****FIGURE 10B**

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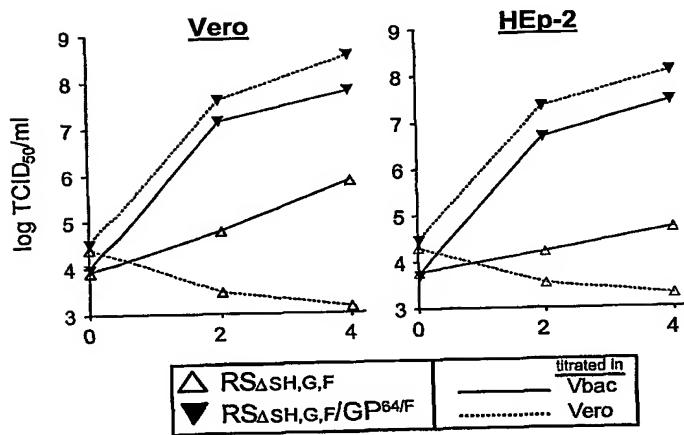
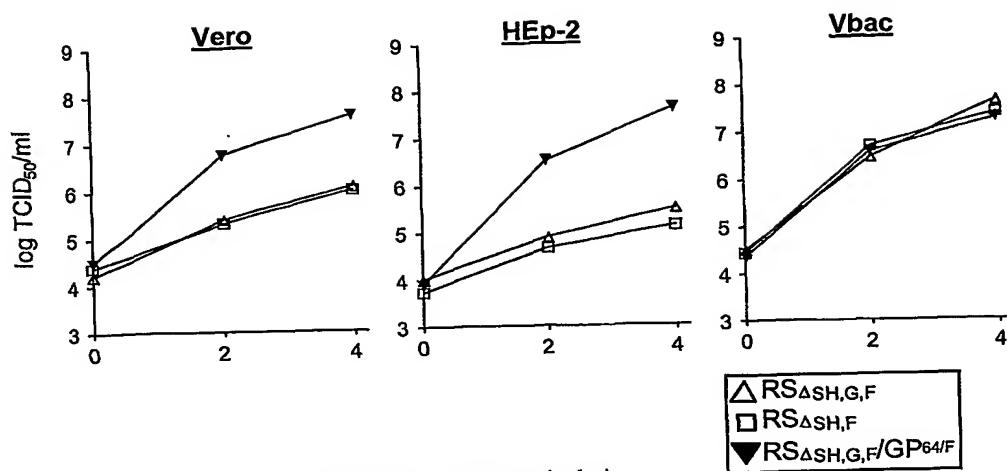
**FIGURE 11A****FIGURE 11B**

**FIGURE 12**



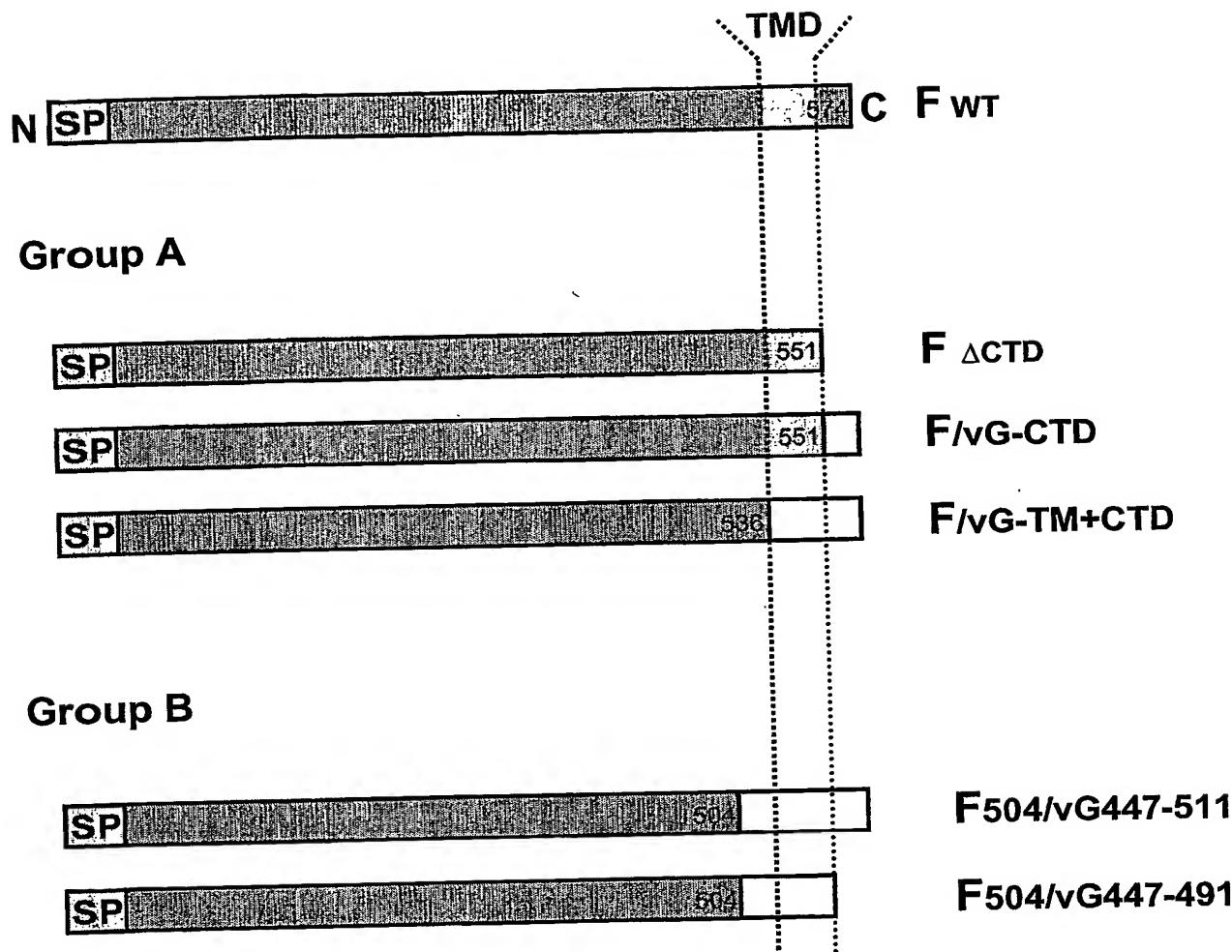
**FIGURE 13**

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	Vero			HEp-2			
	% entry into						
	Vbac	0.01	0.19	1.54	0.01	0.08	0.43
RS <sub>ΔSH,G,F</sub>	Vero	0.03	0.00	0.01	0.03	0.00	0.01
RS <sub>ΔSH,G,F/GP<sup>64</sup>/F</sub>	Vbac	0.00	10.73	56.64	0.01	7.37	32.08
RS <sub>ΔSH,G,F/GP<sup>64</sup>/F</sub>	Vero	0.02	37.26	84.79	0.04	21.01	61.26

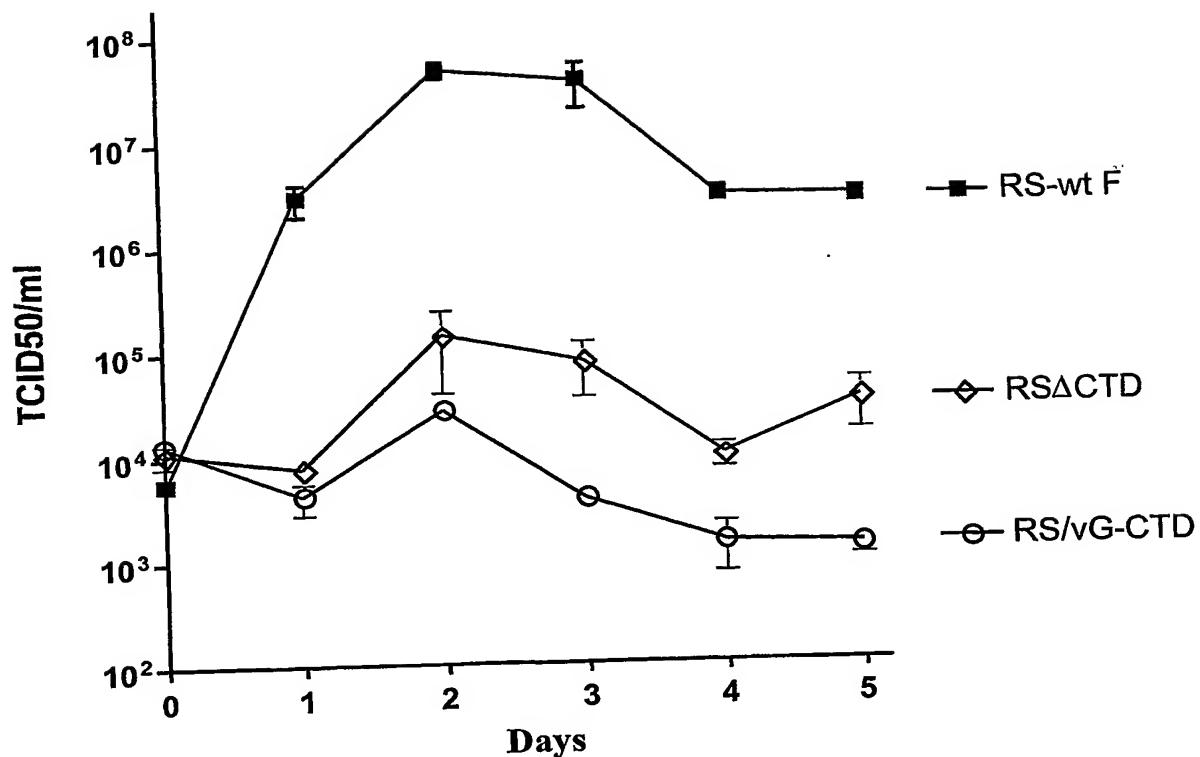
**FIGURE 14C**



SP = signal peptide

TMD =transmembrane domain

**Figure 15**



**Figure 16**

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